

**Constellation Energy**

Nine Mile Point Nuclear Station

P.O. Box 63  
Lycoming, New York 13093

October 25, 2004  
NMP2L 2119

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

**SUBJECT:** Nine Mile Point Unit 2  
Docket No. 50-410  
Facility Operating License No. NPF-69

Submittal of Revision 16 to the Updated Safety Analysis Report, 10 CFR 50.59  
Evaluation Summary Report, Changes to the Quality Assurance Program  
Description, Technical Requirements Manual Changes, and Technical  
Specifications Bases Changes

Gentlemen:

Pursuant to the requirements of 10 CFR 50.71(e), 10 CFR 50.54(a)(3), 10 CFR 50.59(d)(2), and the Nine Mile Point Unit 2 (NMP2) Technical Specifications (TS) Bases Control Program (TS 5.5.10), Nine Mile Point Nuclear Station, LLC (NMPNS) hereby submits the following:

- Revision 16 to the NMP2 Updated Safety Analysis Report (USAR), including changes to the Nine Mile Point Quality Assurance Topical Report,
- The NMP2 10 CFR 50.59 Evaluation Summary Report,
- NMP2 Technical Requirements Manual Changes, and
- NMP2 Technical Specifications Bases Changes.

One (1) copy of the USAR Revision 16 pages is enclosed (Enclosure A). The USAR revision contains changes made since the submittal of Revision 15 in October 2002. The revision reflects all changes up to and including April 25, 2004. The 10 CFR 50.59 Evaluation Summary Report (Enclosure B), covering the same time interval as the USAR revision, contains a brief description of changes, tests, and experiments, and includes summaries of the associated 10 CFR 50.59 evaluations. None of the 10 CFR 50.59 evaluations involved obtaining a license amendment as defined in 10 CFR 50.59(c)(1).

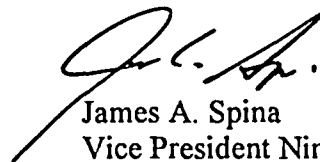
Changes to the Nine Mile Point Quality Assurance Program Topical Report (QATR) that were previously submitted with Revision 18 of the Nine Mile Point Unit 1 Final Safety Analysis Report (Updated), dated October 2003, have been incorporated into NMP2 USAR Appendix B.

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Enclosure C provides the identification, reason, and basis for each change to the quality assurance program description in accordance with 10 CFR 50.54(a)(4)(ii).

One (1) copy of revised Technical Requirements Manual pages (Enclosure D), and one (1) copy of revised Technical Specifications Bases pages (Enclosure F) are also enclosed, which incorporate changes made since April 18, 2002. The corresponding summaries of the changes to these two documents are provided in Enclosures E and G, respectively.

Very truly yours,



James A. Spina  
Vice President Nine Mile Point

JAS/DEV/jm

Enclosures:

- A. Updated Safety Analysis Report - Revision 16
- B. 10 CFR 50.59 Evaluation Summary Report - 2004
- C. Identification of Changes, Reasons, and Bases for Quality Assurance Program Topical Report Description Changes (USAR Appendix B)
- D. Revised Technical Requirements Manual Pages - 2004
- E. Technical Requirements Manual Change Summary - 2004
- F. Revised Technical Specifications Bases Pages - 2004
- G. Technical Specifications Bases Change Summary - 2004

cc: Mr. S. J. Collins, NRC Regional Administrator, Region I  
Mr. G. K. Hunegs, NRC Senior Resident Inspector  
Mr. P. S. Tam, Senior Project Manager, NRR (2 copies)

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

In the Matter of

Nine Mile Point Nuclear  
Station, LLC

(Nine Mile Point Nuclear  
Station Unit 2)

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Docket No. 50-410

**CERTIFICATION**

I, James A. Spina, being duly sworn, state that I am Vice President of Nine Mile Point Nuclear Station, LLC; and that I am duly authorized to execute and file this certification on behalf of Nine Mile Point Nuclear Station, LLC. In accordance with 10 C.F.R. §50.71(e)(2), to the best of my knowledge and belief, I certify that the information contained in the attached letter and the updated Final Safety Analysis Report accurately presents changes made since the previous submittal necessary to reflect information and analyses submitted to the Commission or prepared pursuant to Commission requirements and contains an identification of changes made under the provisions of §50.59 but not previously submitted to the Commission.


By:

  
James A. Spina  
Vice President Nine Mile Point

Subscribed and sworn to before me this 25<sup>th</sup> day of October, 2004.

Notary Public in and for Oswego County, New York

My Commission Expires: 10/25/05

  
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SANDRA A. OSWALD  
Notary Public, State of New York  
No. 01OS6032276  
Qualified in Oswego County  
Commission Expires 10/25/05

# NINE MILE POINT UNIT 2 TECHNICAL REQUIREMENTS MANUAL

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TRM 3.0      TLCO APPLICABILITY

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TLCO 3.0.1      TLCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in TLCO 3.0.2.

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TLCO 3.0.2      Upon discovery of a failure to meet a TLCO, the Required Actions of the associated Conditions shall be met, except as provided in TLCO 3.0.5.

If the TLCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

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TLCO 3.0.3      When a TLCO is not met and the associated ACTIONS are not met or an associated ACTION is not provided, action shall be taken immediately to initiate a DER. The preliminary disposition of the DER shall be completed within 13 hours that details reportability of the condition, compensatory measures, and the effect on the OPERABILITY of Technical Specifications systems, structures, and components. The DER evaluation shall be completed within 37 hours and shall include an evaluation of the degraded condition, the cause of the inoperability, and the plans and schedule for restoring the system, structure, or component to OPERABLE status.

Additionally, the root cause for entry into TLCO 3.0.3 and corrective actions to prevent recurrence shall be determined and documented via the corrective action program.

TLCO 3.0.3 is only applicable in MODES 1, 2, and 3.

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TLCO 3.0.4      When a TLCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a.      When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b.      After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or

(continued)

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TRM 3.0      TLCO APPLICABILITY (continued)

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TLCO 3.0.4  
(continued)

- c.      When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

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TLCO 3.0.5

Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to TLCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

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TRM 3.0 . TRSR APPLICABILITY

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TRSR 3.0.1      TRSRs shall be met during the MODES or other specified conditions in the Applicability for individual TLCOs, unless otherwise stated in the TRSR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the TLCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the TLCO except as provided in TRSR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

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TRSR 3.0.2      The specified Frequency for each TRSR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per..." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

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TRSR 3.0.3      If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the TLCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the TLCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the TLCO must immediately be declared not met, and the applicable Condition(s) must be entered.

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(continued)

TRM 3.0 TRSR APPLICABILITY (continued)

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TRSR 3.0.4            Entry into a MODE or other specified condition in the Applicability of a TLCO shall only be made when the TLCO's Surveillances have been met within their specified Frequency, except as provided by TRSR 3.0.3. When a TLCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with TLCO 3.0.4.

This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

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Non-Type A, Non-Category 1 Post Accident Monitoring Instrumentation  
TRM 3.3.3.1

TRM 3.3 INSTRUMENTATION

TRM 3.3.3.1 Non-Type A, Non-Category 1 Post Accident Monitoring Instrumentation

TLCO 3.3.3.1 Two channels of Suppression Chamber Air Temperature instrumentation shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One channel inoperable.	A.1 Restore channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Complete DER evaluation of the degraded condition, including preplanned alternate methods of monitoring, the cause of the inoperability, and the plans and schedule for restoring the channel to OPERABLE status.	14 days
C. Two channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days
D. Required Action and associated Completion Time of Condition C not met.	D.1 Be in MODE 3.	12 hours

TRM 3.3 INSTRUMENTATION

TRM 3.3.11 Offgas System Explosive Gas Monitoring

TLCO 3.3.11 One Offgas System Explosive Gas Monitoring system hydrogen monitoring channel shall be OPERABLE for each operating offgas recombiner.

APPLICABILITY: During offgas system operation.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each channel.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required monitoring channel inoperable during single train operation.	A.1 Perform TRSR 3.7.8.1 using the common hydrogen analyzer.	Once per 12 hours
	<u>OR</u>	
	A.2 Perform TRSR 3.7.8.1 using grab sample analysis.	Once per 8 hours
	<u>AND</u>	
	A.3 Restore hydrogen monitoring channel to OPERABLE status.	30 days

(continued)

TRM 3.4 REACTOR COOLANT SYSTEM

TRM 3.4.2 Structural Integrity

TLCO 3.4.2 The structural integrity of ASME Code Class 1, 2, and 3 components shall be maintained in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, except where relief or an alternative has been granted by the Commission.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Structural integrity of Class 1 components not conforming as required.	A.1 Initiate action to maintain RCS temperature $\leq 50^{\circ}$ F above minimum temperature required by NDT considerations.	Immediately
	<u>OR</u> A.2 Initiate action to isolate affected component(s).	Immediately
B. Structural integrity of Class 2 components not conforming as required.	B.1 Initiate action to maintain RCS temperature $\leq 200^{\circ}$ F.	Immediately
	<u>OR</u> B.2 Initiate action to isolate affected component(s).	Immediately
C. Structural integrity of Class 3 components not conforming as required.	C.1 Initiate action to isolate affected components.	Immediately

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
TRSR 3.4.2.1 . Perform required inspection and testing in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, except where relief or an alternative has been granted by the Commission.	In accordance with ASME Section XI, as modified by approved relief or alternative

Pressure Isolation Valves  
TRM 3.4.6

TABLE T3.4.6-1 (Page 1 of 1)  
Reactor Coolant System Pressure Isolation Valves

VALVE NUMBER	SYSTEM
2CSH*V108	HPCS
2CSH*MOV107	HPCS
2CSL*V101	LPCS
2CSL*MOV104	LPCS
2ICS*V156	RCIC
2ICS*V157	RCIC
2RHS*V16A, B, C	RHR
2RHS*V39A, B	RHR
2RHS*MOV22A, B	RHR
2RHS*MOV23A, B	RHR
2RHS*MOV24A, B, C	RHR
2RHS*MOV40A, B	RHR
2RHS*MOV67A, B	RHR
2RHS*MOV80A, B	RHR
2RHS*MOV104	RHR
2RHS*MOV112	RHR
2RHS*MOV113	RHR



Table T3.6.1-2 (Page 1 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
<b>A. AUTOMATIC</b>				
2MSS*AOV6 A,B,C,D(n)	Inside MSIV	1	Z,X,D,E,P,T,R,RM,AA	See Technical Specification SR 3.6.1.3.7
2MSS*AOV7 A,B,C,D	Outside MSIV	1	Z,X,D,E,P,T,R,RM,AA	See Technical Specification SR 3.6.1.3.7
2MSS*MOV208	MSL Drain Line Outside IV	1	Z,X,D,E,P,T,R,RM,AA	≤18
2MSS*MOV111	Main Steam Drain Line Inside IV	1	Z,X,D,E,P,T,R,RM,AA	≤60
2MSS*MOV112	Main Steam Drain Line Outside IV	1	Z,X,D,E,P,T,R,RM,AA	≤60
2RHS*MOV33 A,B	RHS Cont. Spray Outside IVs	NA	RM and *	≤35
2RHS*MOV104	RHS Reactor Head Spray Outside IV	5	A,L,M,Z,RM,CC,DD	≤50
2RHS*MOV40 A,B	Shutdown Cooling Return Outside IVs	5	A,L,M,Z,RM,CC,DD	≤29
2RHS*MOV67 A,B	SDC Inboard IV Bypass Valves	5	A,L,M,Z,RM,CC,DD	≤18
2RHS*MOV112	SDC Supply Inside IV	5	A,L,M,Z,RM,CC,DD	≤29
2RHS*MOV113	SDC Supply Outside IV	5	A,L,M,Z,RM,CC,DD	≤29
2CSH*MOV111	CSH Test Return to Suppression Pool Outside IV	NA	RM and *	≤60
2ICS*MOV164	RCIC Vacuum Breaker Outside IV	11	H & F, RM	≤21
2CCP*MOV94 A,B	CCP Supply to RCS Inside IVs	8	B,F,Z,RM	≤38
2CCP*MOV17 A,B	CCP Supply to RCS Outside IVs	8	B,F,Z,RM	≤38
2CCP*MOV16 A,B	CCP Return from RCS Pumps Inside IVs	8	B,F,Z,RM	≤38
2CCP*MOV15 A,B	CCP Return from RCS Pumps Outside IVs	8	B,F,Z,RM	≤38

Table T3.6.1-2 (Page 7 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
<b>B. REMOTE MANUAL</b>				
2RHS*MOV15 A,B	Containment Spray to Drywell Outside IVs	12	RM	NA
2RHS*MOV1 A,B,C	RHS Pump Suction Outside IVs	12	RM	NA
2RHS*MOV30 A,B	RHS Test Line to SP Outside IVs	12	RM	NA
2RHS*MOV25 A,B(q)	Containment Spray to Drywell Outside IVs	12	RM	NA
2RHS*MOV24 A,B,C	RHS/LPCI to RPV Outside IVs	12	RM	NA
2CSH*MOV118	CSH Suction from SP Outside IV	12	RM	NA
2CSH*MOV105	HPCS Min Flow Bypass Outside IV	12	RM	NA
2CSH*MOV107	CSH to RPV Outside IV	12	RM	NA
2CSL*MOV112	CSL Suction from SP Outside IV	12	RM	NA
2CSL*MOV104	CSL to RPV Outside IV	12	RM	NA
2ICS*MOV136	ICS Suction from SP Outside IV	12	RM	NA
2ICS*MOV143(n)	ICS Min Flow to SP Outside IV	12	RM	NA
2ICS*MOV122(q)	ICS Turbine Exhaust to SP Outside IV	12	RM	NA
2ICS*MOV126(q)	ICS to RPV Outside IV	12	RM	NA
2NMS*VEX1 A,B,C,D,E(d)	Traversing Incore Probe Shear Outside IVs	12	RM	NA
2FWS*MOV21 A,B	Feedwater to RPV Outside IVs	12	RM	NA
2WCS*MOV200	WCS to RPV Outside IV	12	RM	NA
2RHS*MOV26 A,B(c)	RHS HX Vent Inboard IVs	12	RM	NA
2RHS*MOV27 A,B(c)	RHS HX Vent Outboard IVs	12	RM	NA
2SLS*MOV5 A,B(g)	SLS to RPV Outside IV	12	RM	NA

Table T3.6.1-2 (Page 10 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
D. <u>OTHER</u> (continued)				
<u>Check Valves</u>				
2RHS*V16 A,B,C(h)	RHS/LPCI to RPV Inside IVs	NA	NA	NA
2RHS*V39 A,B	SDC to RCS Inside IVs	NA	NA	NA
2CPS*V50	Nitrogen Supply to CPS*AOV107 Inside IV	NA	NA	NA
2CPS*V51	Nitrogen Supply to CPS*AOV109 Inside IV	NA	NA	NA
2CSH*V108(h)	CSH to RPV Inside IV	NA	NA	NA
2CSL*V101(h)	CSL to RPV Inside IV	NA	NA	NA
2ICS*V156	ICS to RPV Outside IV	NA	NA	NA
2ICS*V157	ICS to RPV Inside IV	NA	NA	NA
2SLS*V10	SLS to RPV Inside IV	NA	NA	NA
2GSN*V170	N <sub>2</sub> Purge to Tip Index Mech. Inside IV	NA	NA	NA
2IAS*V448	IAS to ADS Accumulators Inside IV	NA	NA	NA
2IAS*V449	IAS to ADS Accumulators Inside IV	NA	NA	NA
2RCS*V59 A,B	RDS to RCS Pumps A and B Seals Outside IVs	NA	NA	NA
2RCS*V60 A,B	RDS to RCS Pumps A and B Seals Inside IVs	NA	NA	NA
2RCS*V90 A,B	RDS to RCS Pumps A and B Seals Outside IVs	NA	NA	NA

Table T3.6.1-2 (Page 12 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
D. <u>OTHER</u> (continued)				
2ISC*EFV17	Inst. Line from N12, 20°	NA	NA	NA
2ISC*EFV18	To 2ISC*FT47J, FT48A	NA	NA	NA
2ISC*EFV20	To 2ISC*FT47E	NA	NA	NA
2ISC*EFV21	Vessel Bottom Tap for CSH, RDS	NA	NA	NA
2ISC*EFV22	Vessel Bottom Tap for WCS and Loop B J.P.	NA	NA	NA
2ISC*EFV23	To 2ISC*FT48C and Postaccident Sampling	NA	NA	NA
2ISC*EFV24	To 2ISC*FT48D and Postaccident Sampling	NA	NA	NA
2ISC*EFV25	To 2ISC*FT47L	NA	NA	NA
2ISC*EFV26	To 2ISC*FT47C	NA	NA	NA
2ISC*EFV27	To 2ISC*FT47A	NA	NA	NA
2ISC*EFV28	To 2ISC*FT47R	NA	NA	NA
2ISC*EFV29	To 2ISC*FT47G	NA	NA	NA
2ISC*EFV30	To 2ISC*FT47N	NA	NA	NA
2ISC*EFV31	To 2ISC*FT48A	NA	NA	NA
2ISC*EFV32	To 2ISC*FT47T	NA	NA	NA
2ISC*EFV33	To 2ISC*FT47V, FT48C	NA	NA	NA
2ISC*EFV34	To 2ISC*FT47B	NA	NA	NA
2ISC*EFV35	To 2ISC*FT47D	NA	NA	NA
2ISC*EFV36	To 2ISC*FT47F	NA	NA	NA
2ISC*EFV37	To 2ISC*FT47S	NA	NA	NA
2ISC*EFV38	To 2ISC*FT47M	NA	NA	NA
2ISC*EFV39	To 2ISC*FT47P	NA	NA	NA
2ISC*EFV40	To 2ISC*FT48B	NA	NA	NA
2ISC*EFV41	To 2ISC*FT47U	NA	NA	NA
2ISC*EFV42	To 2ISC*FT47W, FT48D	NA	NA	NA
2ICS*EFV1	To 2ICS*PDT167	NA	NA	NA
2ICS*EFV2	To 2ICS*PDT167	NA	NA	NA
2ICS*EFV3	To 2ICS*PDT168	NA	NA	NA
2ICS*EFV4	To 2ICS*PDT168	NA	NA	NA
2ICS*EFV5	To 2ICS*PT142, 143	NA	NA	NA

Table T3.6.1-2 (Page 13 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
D. <u>OTHER</u> (continued)				
2RHS*EFV 5,6	To 2RHS*PDT18B	NA	NA	NA
2RHS*EFV7	To 2RHS*PDT18A	NA	NA	NA
2MSS*EFV 1A,B,C,D	To Flow Elements A,B,C,D Steamlines	NA	NA	NA
2MSS*EFV 2A,B,C,D	To Flow Elements A,B,C,D Steamlines	NA	NA	NA
2MSS*EFV 3A,B,C,D	To Flow Elements A,B,C,D Steamlines	NA	NA	NA
2MSS*EFV 4A,B,C,D	To Flow Elements A,B,C,D Steamlines	NA	NA	NA
2RCS*EFV45 A,B	To 2RCS*FT 7 A/B, FT 9 A/B	NA	NA	NA
2RCS*EFV46 A,B	To 2RCS*FT 7 A/B, FT 9 A/B	NA	NA	NA
2RCS*EFV47 A,B	To 2RCS*FT 6 A/B, FT 8 A/B	NA	NA	NA
2RCS*EFV48 A,B	To 2RCS*FT 6 A/B, FT 8 A/B	NA	NA	NA
2RCS*EFV52 A,B	To 2RCS*PDT 15 A/B	NA	NA	NA
2RCS*EFV53 A,B	To 2RCS*PDT 15 A/B	NA	NA	NA
2RCS*EFV62 A,B	To 2RCS*PT44 A/B	NA	NA	NA
2RCS*EFV63 A,B	To 2RCS*PT42 A/B	NA	NA	NA
2WCS*EFV221	To 2WCS-FT 134	NA	NA	NA
2WCS*EFV222	To 2WCS*FT67X, PDS 115	NA	NA	NA
2WCS*EFV223	To 2WCS*FT67Y	NA	NA	NA
2WCS*EFV224	To 2WCS*FT67Y	NA	NA	NA
2WCS*EFV300	To 2WCS*FT67X, PDS 115	NA	NA	NA
2CSH*EFV3	To 2CSH*PDT109	NA	NA	NA
2CSL*EFV1	To 2CSL*PDT132 and 2RHS*PDT18A	NA	NA	NA
<u>Excess Flow Check(e)</u>				
<u>Other Instrumentation</u>				
<u>Lines</u>				
2ISC*EFV9	Containment Pressure 2ISC*PT15C,16B,16D	NA	NA	NA

Table T3.6.1-2 (Page 14 of 17)  
Primary Containment Isolation Valves

ISOLATION VALVE NO.	VALVE FUNCTION	VALVE GROUP	ISOLATION SIGNAL (a)	ISOLATION TIME (SECONDS) (p)
D. OTHER (continued)				
2ISC*EFV12	Containment Pressure 2ISC*PT15B, 17B, 17D	NA	NA	NA
2ISC*EFV16	Containment Pressure 2ISC*PT15A, 16A, 16C	NA	NA	NA
2ISC*EFV19	Containment Pressure 2ISC*PT15D, 17A, 17C	NA	NA	NA
2CMS*EFV1A	To CMS*PT1A	NA	NA	NA
2CMS*EFV1B	To CMS*PT1B	NA	NA	NA
2CMS*EFV3A	To CMS*PT2A	NA	NA	NA
2CMS*EFV3B	To CMS*PT2B	NA	NA	NA
2CMS*EFV5A	To CMS*PT7A	NA	NA	NA
2CMS*EFV5B	To CMS*PT7B	NA	NA	NA
2CMS*EFV6	To CMS-PT168	NA	NA	NA
2CMS*EFV8A	To CMS*LT9A, 11A, 114	NA	NA	NA
2CMS*EFV8B	To CMS*LT9B, 11B, 105	NA	NA	NA
2CMS*EFV9A	To CMS*LT9A, 11A, 114	NA	NA	NA
2CMS*EFV9B	To CMS*LT99B, 11B, 105	NA	NA	NA
2CMS*EFV10	To CMS-PI173	NA	NA	NA
2DER*EFV31	To DER*PT134	NA	NA	NA
2IAS*EFV200	To 2IAS*PT230 off ADS Accum.	NA	NA	NA
2IAS*EFV201	To 2IAS*PT231 off ADS Accum.	NA	NA	NA
2IAS*EFV202	To 2IAS*PT232 off ADS Accum.	NA	NA	NA
2IAS*EFV203	To 2IAS*PT235 off ADS Accum.	NA	NA	NA
2IAS*EFV204	To 2IAS*PT234 off ADS Accum.	NA	NA	NA
2IAS*EFV205	To 2IAS*PT233 off ADS Accum.	NA	NA	NA
2IAS*EFV206	To 2IAS*PT236 off ADS Accum.	NA	NA	NA
2RCS*EFV44 A,B	To 2RCS*PT84 A/B	NA	NA	NA
2CSH*EFV1	To 2CSH*LT123, LT124	NA	NA	NA
2CSH*EFV2	To 2CSH*LT123, LT124	NA	NA	NA

Table T3.6.1-2 (Page 15 of 17)  
Primary Containment Isolation Valves

Table Notations

- \* Isolates on injection signal, not primary containment isolation signal.
- (a) See page 17 in this Table for the key to the isolation signals.
- (b) Deleted.
- (c) These valves are the RHR heat exchangers vent lines isolation valves. The vent line connects to the RHR safety relief valves (SRVs) discharge header before it penetrates the primary containment. The position indicators for these valves are provided in the Control Room for remote manual isolation.
- (d) Type C leakage tests not required.
- (e) The associated instrument lines shall not be isolated during Type A testing. Type C testing is not required. The reactor instrumentation line excess flow check valves shall be tested in accordance with Technical Specification SR 3.6.1.3.9.
- (f) These valves are check valves, located in the vacuum breaker lines for RHR SRVs discharge headers. The SRV discharge header terminates under pool water and therefore has no containment isolation valves other than those on lines feeding into it.
- (g) 2SLS\*MOV5A and B are globe stop check valves. These valves close upon reverse flow. The motor operator is provided to remote manually close the valve from the Control Room.
- (h) These valves are testable check valves. They close upon reverse flow. These valves can only be tested against a zero d/p.
- (i) Valves are maintained closed. The FPW lines are capped. Valves are Type C tested.
- (j) Not used.
- (k) Valves close on a SCRAM signal; not part of primary containment isolation system but are included here for Type C testing per Technical Specification 3.6.1.1. These valves are not required to be OPERABLE per this specification but are required to be OPERABLE per Technical Specification 3.1.8.
- (l) Not subject to Type A or Type C leak test because of constant monitoring under constant 1800 psig pressure and the possible detrimental effects of shutdown.
- (m) Not used.
- (n) These valves are Type C tested and may be tested in the reverse direction.
- (o) Deleted

TRM 3.7 PLANT SYSTEMS

TRM 3.7.8 Explosive Gas Mixture

TLCO 3.7.8 The concentration of hydrogen in the main condenser offgas treatment system shall be  $\leq 4\%$  by volume.

APPLICABILITY: During offgas system operation.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Offgas hydrogen concentration not within limit.	A.1 Restore concentration to within limit.	48 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
TRSP 3.7.8.1 Verify concentration of hydrogen in the main condenser offgas treatment system $\leq 4\%$ by volume.	24 hours



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TRM 5.5.3

TRM 5.5      PROGRAMS

TRM 5.5.3   Deleted

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TRM B3.4 REACTOR COOLANT SYSTEM

TRM B3.4.2 Structural Integrity

BASES

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The inspection programs for ASME Code Class 1, 2, and 3 components ensure that the structural integrity of these components will be maintained at an acceptable level throughout the life of the plant.

Components of the reactor coolant system were designed to provide access to permit inservice inspections in accordance with Section XI of the ASME Boiler Pressure Vessel Code, 1980 Edition, and Addenda through Winter of 1980.

The inservice inspection program for ASME Code Class 1, 2, and 3 components will be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a except where relief or an alternative has been granted by the NRC.

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TRM B3.7 PLANT SYSTEMS

TRM B3.7.8 Explosive Gas Mixture

#### BASES

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This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the GASEOUS RADWASTE TREATMENT SYSTEM is maintained below the flammability limits of hydrogen and oxygen. Manual control features are utilized to prevent the hydrogen concentrations from reaching these flammability limits. These manual control features include injection of dilutants to reduce concentrations below flammability limits. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of GDC 60 of Appendix A to 10CFR50.

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B 3.0-9	9	B 3.1.7-2	0	B 3.3.1.1-23	1
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B 3.0-17	11	B 3.1.8-3	0	B 3.3.1.1-31	1
		B 3.1.8-4	0	B 3.3.1.1-32	1
B 3.1.1-1	0	B 3.1.8-5	0	B 3.3.1.1-33	1
B 3.1.1-2	0			B 3.3.1.1-34	1
B 3.1.1-3	0	B 3.2.1-1	0	B 3.3.1.1-35	1
B 3.1.1-4	0	B 3.2.1-2	0	B 3.3.1.1-36	1
B 3.1.1-5	0	B 3.2.1-3	0		
B 3.1.1-6	0			B 3.3.1.2-1	0
		B 3.2.2-1	0	B 3.3.1.2-2	0
B 3.1.2-1	0	B 3.2.2-2	0	B 3.3.1.2-3	0
B 3.1.2-2	0	B 3.2.2-3	0	B 3.3.1.2-4	0
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BASES

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LCO 3.0.3  
(continued)

assemblies in the spent fuel storage pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.6 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.6 of "Suspend movement of irradiated fuel assemblies in the spent fuel storage pool" is the appropriate Required Action to complete in lieu of the actions of LCO 3.0.3. These exceptions are addressed in the individual Specifications.

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LCO 3.0.4

LCO 3.0.4 establishes limitations on changes in MODES or other specified conditions in the Applicability when an LCO is not met. It allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

LCO 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time. Compliance with Required Actions that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made in accordance with the provisions of the Required Actions.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

The risk assessment may use quantitative, qualitative, or blended approaches, and the risk assessment will be conducted using the plant program, procedures, and criteria in place to implement 10 CFR 50.65(a)(4), which requires that risk impacts of maintenance activities to be assessed and managed. The risk assessment, for the purposes of LCO 3.0.4.b, must take into account all inoperable Technical Specification

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BASES

LCO 3.0.4  
(continued)

equipment regardless of whether the equipment is included in the normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed MODE change is acceptable. Consideration should also be given to the probability of completing restoration such that the requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

LCO 3.0.4.b may be used with single, or multiple systems and components unavailable. NUMARC 93-01 provides guidance relative to consideration of simultaneous unavailability of multiple systems and components.

The results of the risk assessment shall be considered in determining the acceptability of entering the MODE or other specified condition in the Applicability, and any corresponding risk management actions. The LCO 3.0.4.b risk assessments do not have to be documented.

The Technical Specifications allow continued operation with equipment unavailable in MODE 1 for the duration of the Completion Time. Since this is allowable, and since in general the risk impact in that particular MODE bounds the risk of transitioning into and through the applicable MODES or other specified conditions in the Applicability of the LCO, the use of the LCO 3.0.4.b allowance should be generally acceptable, as long as the risk is assessed and managed as stated above. However, there is a small subset of systems and components that have been determined to be more important to risk and use of the LCO 3.0.4.b allowance is prohibited. The LCOs governing these system and components contain Notes prohibiting the use of LCO 3.0.4.b by stating that LCO 3.0.4.b is not applicable.

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BASES

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LCO 3.0.4  
(continued)

LCO 3.0.4.c allows entry into a MODE or other specified condition in the Applicability with the LCO not met based on a Note in the Specification which states LCO 3.0.4.c is applicable. These specific allowances permit entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered do not provide for continued operation for an unlimited period of time and a risk assessment has not been performed. This allowance may apply to all the ACTIONS or to a specific Required Action of a Specification. The risk assessments performed to justify the use of LCO 3.0.4.b usually only consider systems and components. For this reason, LCO 3.0.4.c is typically applied to Specifications which describe values and parameters (e.g., RCS Specific Activity), and may be applied to other Specifications based on NRC plant-specific approval.

The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

The provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2 or MODE 3, MODE 2 to MODE 3, and MODE 3 to MODE 4.

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, LCO 3.0.1 and LCO 3.0.2 require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the LCO is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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(continued)

BASES (continued)

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LCO 3.0.5 LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g., to not comply with the applicable Required Action(s)) to allow the performance of required testing to demonstrate:

- a. The OPERABILITY of the equipment being returned to service; or
- b. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time absolutely necessary to perform the required testing to demonstrate OPERABILITY. This Specification does not provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with Required Actions, and must be reopened to perform the required testing.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

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LCO 3.0.6 LCO 3.0.6 establishes an exception to LCO 3.0.2 for support systems that have an LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the Conditions and Required Actions of the associated inoperable supported system's LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the plant is maintained in a safe condition are specified in the support systems' LCO's Required Actions. These Required Actions may include entering the supported system's Conditions and Required Actions or may specify other Required Actions.

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BASES

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LCO 3.0.6  
(continued)

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability.

However, it is not necessary to enter into the supported systems' Conditions and Required Actions unless directed to do so by the support system's Required Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCO's Conditions and Required Actions are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's Required Actions.

However, there are instances where a support system's Required Action may either direct a supported system to be declared inoperable or direct entry into Conditions and Required Actions for the supported system. This may occur immediately or after some specified delay to perform some other Required Action. Regardless of whether it is immediate or after some delay, when a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

Specification 5.5.11, "Safety Function Determination Program" (SFDP), ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

Cross division checks to identify a loss of safety function for those support systems that support safety systems are required. The cross division check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operation is being restricted in accordance with the ACTIONS of the support system, any resulting

(continued)

BASES

LCO 3.0.6  
(continued)

temporary loss of redundancy or single failure protection is taken into account. Similarly, the ACTIONS for inoperable offsite circuit(s) and inoperable diesel generator(s) provide the necessary restriction for cross division inoperabilities. This explicit cross division verification for inoperable AC electrical power sources also acknowledges that supported system(s) are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source (refer to the definition of OPERABLE – OPERABILITY).

When a loss of safety function is determined to exist, and the SFDP requires entry into the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single Technical Specification support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level) the appropriate LCO is the LCO for the support system. The ACTIONS for a support system LCO adequately addresses the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

LCO 3.0.7

There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics, to perform special maintenance activities, and to perform special evolutions. Special Operations LCOs in Section 3.10 allow specified TS requirements to be changed to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all the other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

The Applicability of a Special Operations LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with Special Operations LCOs is optional. A special

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BASES

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LCO 3.0.7  
(continued)

operation may be performed either under the provisions of the appropriate Special Operations LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the Special Operations LCO, the requirements of the Special Operations LCO shall be followed. When a Special Operations LCO requires another LCO to be met, only the requirements of the LCO statement are required to be met regardless of that LCO's Applicability (i.e., should the requirements of this other LCO not be met, the ACTIONS of the Special Operations LCO apply, not the ACTIONS of the other LCO). However, there are instances where the Special Operations LCO's ACTIONS may direct the other LCO's ACTIONS be met. The Surveillances of the other LCO are not required to be met, unless specified in the Special Operations LCO. If conditions exist such that the Applicability of any other LCO is met, all the other LCO's requirements (ACTIONS and SRs) are required to be met concurrent with the requirements of the Special Operations LCO.

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## B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

### BASES

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SRs	SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications in Sections 3.1 through 3.10 and apply at all times, unless otherwise stated.
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SR 3.0.1	<p>SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO.</p> <p>Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:</p> <ol style="list-style-type: none"><li>The systems or components are known to be inoperable, although still meeting the SRs; or</li><li>The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.</li></ol> <p>Surveillances do not have to be performed when the unit is in a MODE or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified. The SRs associated with a Special Operations LCO are only applicable when the Special Operations LCO is used as an allowable exception to the requirements of a Specification.</p> <p>Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR.</p> <p>Surveillances, including Surveillances invoked by Required Actions, do not have to be performed on inoperable equipment because the ACTIONS define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 3.0.2, prior to returning equipment to OPERABLE status.</p>
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(continued)

BASES

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SR 3.0.1  
(continued)

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 3.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed. Some examples of this process are:

- a. Control rod drive maintenance during refueling that requires scram testing at  $\geq 800$  psig. However, if other appropriate testing is satisfactorily completed and the scram time testing of SR 3.1.4.3 is satisfied, the control rod can be considered OPERABLE. This allows startup to proceed to reach 800 psig to perform other necessary testing.
- b. Reactor Core Isolation Cooling (RCIC) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with RCIC considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

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SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Action with a Completion Time that requires the periodic performance of the Required Action on a "once per..." interval.

SR 3.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

(continued)

## BASES

### SR 3.0.2 (continued)

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 3.0.2 are those Surveillances for which the 25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. The requirements of regulations take precedence over the TS. Therefore, when a test interval is specified in the regulations, the test interval cannot be extended by the TS, and the SR includes a Note in the Frequency stating "SR 3.0.2 is not applicable."

As stated in SR 3.0.2, the 25% extension also does not apply to the initial portion of a periodic Completion Time that requires performance on a "once per..." basis. The 25% extension applies to each performance after the initial performance. The initial performance of the Required Action, whether it is a particular Surveillance or some other remedial action, is considered a single action with a single Completion Time. One reason for not allowing the 25% extension to this Completion Time is that such an action usually verifies that no loss of function has occurred by checking the status of redundant or diverse components or accomplishes the function of the inoperable equipment in an alternative manner.

The provisions of SR 3.0.2 are not intended to be used repeatedly merely as an operational convenience to extend Surveillance intervals (other than those consistent with refueling intervals) or periodic Completion Time intervals beyond those specified.

### SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, applies from the point in time it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met. This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit

(continued)

## BASES

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### SR 3.0.3 (continued)

conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth

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BASES

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SR 3.0.3  
(continued)

and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the Corrective Action Program.

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable then is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

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SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a MODE or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit. The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

A provision is included to allow entry into a MODE or other specified condition in the Applicability when an LCO is not met due to a Surveillance not being met in accordance with LCO 3.0.4.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that Surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing

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## BASES

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### SR 3.0.4 (continued)

to perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes. SR 3.0.4 does not restrict changing MODES or other specified conditions of the Applicability when a Surveillance has not been performed within the specified Frequency, provided the requirement to declare the LCO not met has been delayed in accordance with SR 3.0.3.

The provisions of SR 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of SR 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2 or MODE 3, MODE 2 to MODE 3, and MODE 3 to MODE 4.

The precise requirements for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into the MODE or other specified condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance that could not be performed until after entering the LCO's Applicability, would have its Frequency specified such that it is not "due" until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a Note, as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SRs' annotation is found in Section 1.4, Frequency.

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## B 3.1 REACTIVITY CONTROL SYSTEMS

### B 3.1.7 Standby Liquid Control (SLC) System

#### BASES

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##### BACKGROUND

The SLC System is designed to provide the capability of bringing the reactor, at any time in a fuel cycle, from full power and minimum control rod inventory (which is at the peak of the xenon transient) to a subcritical condition with the reactor in the most reactive xenon free state without taking credit for control rod movement. The SLC System satisfies the requirements of 10 CFR 50.62 (Ref. 1) on anticipated transient without scram (ATWS).

The SLC System consists of a boron solution storage tank, two positive displacement pumps, two explosive valves, which are provided in parallel for redundancy, and associated piping and valves used to transfer borated water from the storage tank to the reactor pressure vessel (RPV). The borated solution is discharged through the high pressure core spray system sparger.

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##### APPLICABLE SAFETY ANALYSES

The SLC System is manually initiated from the main control room, as directed by the emergency operating procedures, if the operator believes the reactor cannot be shut down, or kept shut down, with the control rods. The SLC System can also be automatically initiated as required by Reference 1; however, this is not necessary for SLC System OPERABILITY. The SLC System is used in the event that not enough control rods can be inserted to accomplish shutdown and cooldown in the normal manner. The SLC System injects borated water into the reactor core to compensate for all of the various reactivity effects that could occur during plant operation. To meet this objective, it is necessary to inject, using both SLC pumps, a quantity of boron that produces a concentration equivalent to 780 ppm of natural boron in the reactor core, including recirculation loops, at 68°F and reactor water level at level 8. To allow for potential leakage and imperfect mixing in the reactor system, an additional amount of boron equal to 25% of the amount cited above is added (Ref. 2). An additional amount is provided to accommodate dilution in the RPV by the residual heat removal shutdown cooling piping. The volume versus concentration limits in Figure 3.1.7-1 are calculated such that the required concentration is achieved. This quantity of borated solution is the amount that is above the pump suction

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## BASES

### SURVEILLANCE REQUIREMENTS

#### SR 3.1.7.8 and SR 3.1.7.9 (continued)

path for injecting the sodium pentaborate solution. An acceptable method for verifying that the suction piping up to the suction valve is unblocked is to pump from the storage tank to the test tank. Upon completion of this verification, the pump suction piping between the pump suction valve and pump suction must be drained and flushed with demineralized water, since this piping is not heat traced. The 24 month Frequency is acceptable since there is a low probability that the subject piping will be blocked due to precipitation of the boron from solution in the heat traced piping. This is especially true in light of the daily temperature verification of this piping required by SR 3.1.7.3. However, if, in performing SR 3.1.7.3, it is determined that the temperature of this piping has fallen below the specified minimum, SR 3.1.7.9 must be performed once within 24 hours after the piping temperature is restored within the limits of SR 3.1.7.3.

#### SR 3.1.7.10

Enriched sodium pentaborate solution is made by mixing granular, enriched sodium pentaborate with water. Isotopic tests on the granular sodium pentaborate to verify the actual B-10 enrichment must be performed prior to addition to the SLC tank in order to ensure that the proper B-10 atom percentage is being used.

### REFERENCES

1. 10 CFR 50.62.
2. USAR, Section 9.3.5.3.
3. 10 CFR 50.36(c)(2)(ii).



BASES

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LCO

11. Suppression Pool Water Temperature (continued)

available for the indicator and a different pen recorder for each sensor is available for the two recorders so that each sensor can be monitored. The indicator and recorders are the primary indication used by the operator during an accident. Therefore, the PAM Specification deals specifically with this portion of the instrument channels.

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APPLICABILITY

The PAM instrumentation LCO is applicable in MODES 1 and 2. These variables are related to the diagnosis and preplanned actions required to mitigate DBAs. The applicable DBAs are assumed to occur in MODES 1 and 2. In MODES 3, 4, and 5, plant conditions are such that the likelihood of an event that would require PAM instrumentation is extremely low; therefore, PAM instrumentation is not required to be OPERABLE in these MODES.

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ACTIONS

A Note has been provided to modify the ACTIONS related to PAM instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable PAM instrumentation channels provide appropriate compensatory measures for separate inoperable functions. As such, a Note has been provided that allows separate Condition entry for each inoperable PAM Function.

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BASES

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APPLICABILITY. (continued)	necessary instrument control Functions if control room instruments or control becomes unavailable. Consequently, the LCO does not require OPERABILITY in MODES 3, 4, and 5.
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ACTIONS	<p>A Note has been provided to modify the ACTIONS related to Remote Shutdown System Functions. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable Remote Shutdown System Functions provide appropriate compensatory measures for separate Functions. As such, a Note has been provided that allows separate Condition entry for each inoperable Remote Shutdown System Function.</p>
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A.1

Condition A addresses the situation where one or more required Functions of the Remote Shutdown System is inoperable. This includes any Function listed in Reference 4, as well as the control and transfer switches. The Required Action is to restore the Function (both divisions, if applicable) to OPERABLE status within 30 days. The Completion Time is based on operating experience and the low probability of an event that would require evacuation of the control room.

B.1

If the Required Action and associated Completion Time of Condition A are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status,

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BASES (continued)

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LCO	The drywell floor drain tank fill rate monitoring system is required to quantify the unidentified LEAKAGE from the RCS. The other monitoring system (particulate or gaseous) provides early alarms to the operators so closer examination of other detection systems will be made to determine the extent of any corrective action that may be required. With the leakage detection systems inoperable, monitoring for LEAKAGE in the RCPB is degraded.
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APPLICABILITY	In MODES 1, 2, and 3, leakage detection systems are required to be OPERABLE to support LCO 3.4.5. This Applicability is consistent with that for LCO 3.4.5.
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ACTIONS	<u>A.1</u>  With the drywell floor drain tank fill rate monitoring system inoperable, no other form of sampling can provide the equivalent information to quantify leakage. However, the drywell atmospheric activity monitor will provide indications of changes in leakage.
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With the drywell floor drain tank fill rate monitoring system inoperable, but with RCS unidentified and total LEAKAGE being determined every 12 hours (SR 3.4.5.1), operation may continue for 30 days. The 30 day Completion Time of Required Action A.1 is acceptable, based on operating experience, considering the multiple forms of leakage detection that are still available.

B.1 and B.2

With both gaseous and particulate drywell atmospheric monitoring channels inoperable (i.e., the required drywell atmospheric monitoring system), grab samples of the drywell atmosphere shall be taken and analyzed to provide periodic leakage information. Provided a sample is obtained and

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BASES

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ACTIONS

B.1 and B.2 (continued)

analyzed every 12 hours, the plant may be operated for up to 30 days to allow restoration of at least one of the required monitors.

The 12 hour interval provides periodic information that is adequate to detect LEAKAGE. The 30 day Completion Time for restoration recognizes that at least one other form of leakage detection is available.

C.1 and C.2

If any Required Action and associated Completion Time of Condition A or B cannot be met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions in an orderly manner and without challenging plant systems.

D.1

With all required monitors inoperable, no required automatic means of monitoring LEAKAGE are available, and immediate plant shutdown in accordance with LCO 3.0.3 is required.

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SURVEILLANCE  
REQUIREMENTS

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the other required instrumentation (either the drywell floor drain tank fill rate monitoring system or the drywell atmospheric monitoring channel, as applicable) is OPERABLE. Upon completion of the Surveillance, or

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BASES

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APPLICABLE  
SAFETY ANALYSES  
(continued)

The limit on specific activity is a value from a parametric evaluation of typical site locations. This limit is conservative because the evaluation considered more restrictive parameters than for a specific site, such as the location of the site boundary and the meteorological conditions of the site.

RCS specific activity satisfies Criterion 2 of Reference 3.

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LCO

The specific iodine activity is limited to  $\leq 0.2 \mu\text{Ci/gm}$  DOSE EQUIVALENT I-131. This limit ensures the source term assumed in the safety analysis for the MSLB is not exceeded, so any release of radioactivity to the environment during an MSLB is less than a small fraction of the 10 CFR 100 limits.

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APPLICABILITY

In MODE 1, and MODES 2 and 3 with any main steam line not isolated, limits on the primary coolant radioactivity are applicable since there is an escape path for release of radioactive material from the primary coolant to the environment in the event of an MSLB outside of primary containment.

In MODES 2 and 3 with the main steam lines isolated, such limits do not apply since an escape path does not exist. In MODES 4 and 5, no limits are required since the reactor is not pressurized and the potential for leakage is reduced.

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ACTIONS

A.1 and A.2

When the reactor coolant specific activity exceeds the LCO DOSE EQUIVALENT I-131 limit, but is  $\leq 4.0 \mu\text{Ci/gm}$ , samples must be analyzed for DOSE EQUIVALENT I-131 at least once every 4 hours. In addition, the specific activity must be restored to the LCO limit within 48 hours. The Completion Time of once every 4 hours is based on the time needed to take and analyze a sample. The 48 hour Completion Time to restore the activity level provides a reasonable time for temporary coolant activity increases (iodine spikes or crud bursts) to be cleaned up with the normal processing systems.

A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(S) while relying on the ACTIONS.

(continued)

BASES

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ACTIONS

A.1 and A.2 (continued)

This allowance is acceptable due to the significant conservatism incorporated into the specific activity limit, the low probability of an event which is limiting due to exceeding this limit, and the ability to restore transient specific activity excursions while the plant remains at, or proceeds to power operation.

B.1, B.2.1, B.2.2.1, and B.2.2.2

If the DOSE EQUIVALENT I-131 cannot be restored to  $\leq 0.2 \mu\text{Ci/gm}$  within 48 hours, or if at any time it is  $> 4.0 \mu\text{Ci/gm}$ , it must be determined at least every 4 hours and all the main steam lines must be isolated within 12 hours. Isolating the main steam lines precludes the possibility of releasing radioactive material to the environment in an amount that is more than a small fraction of the requirements of 10 CFR 100 during a postulated MSLB accident.

Alternately, the plant can be brought to MODE 3 within 12 hours and to MODE 4 within 36 hours. This option is provided for those instances when isolation of main steam lines is not desired (e.g., due to the decay heat loads). In MODE 4, the requirements of the LCO are no longer applicable.

The Completion Time of once every 4 hours is the time needed to take and analyze a sample. The 12 hour Completion Time is reasonable, based on operating experience, to isolate the main steam lines in an orderly manner and without challenging plant systems. Also, the allowed Completion Times for Required Actions B.2.2.1 and B.2.2.2 for bringing the plant to MODES 3 and 4 are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

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(continued)

## BASES (continued)

## ACTIONS

A Note has been provided to modify the ACTIONS related to RHR shutdown cooling subsystems. Section 1.3, Completion Times, specifies once a Condition has been entered, subsequent divisions, subsystems, components or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable shutdown cooling subsystems provide appropriate compensatory measures for separate inoperable shutdown cooling subsystems. As such, a Note has been provided that allows separate Condition entry for each inoperable RHR shutdown cooling subsystem.

A.1, A.2, and A.3

With one RHR shutdown cooling subsystem inoperable for decay heat removal, except as permitted by LCO Note 2, the inoperable subsystem must be restored to OPERABLE status without delay. In this condition, the remaining OPERABLE subsystem can provide the necessary decay heat removal. The overall reliability is reduced, however, because a single failure in the OPERABLE subsystem could result in reduced RHR shutdown cooling capability. Therefore an alternate method of decay heat removal must be provided.

With both RHR shutdown cooling subsystems inoperable, an alternate method of decay heat removal must be provided in addition to that provided for the initial RHR shutdown cooling subsystem inoperability. This re-establishes backup decay heat removal capabilities, similar to the requirements of the LCO. The 1 hour Completion Time is based on the decay heat removal function and the probability of a loss of the available decay heat removal capabilities.

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## B 3.4 REACTOR COOLANT SYSTEM (RCS)

### B 3.4.11 RCS Pressure and Temperature (P/T) Limits

#### BASES

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##### BACKGROUND

All components of the RCS are designed to withstand effects of cyclic loads due to system pressure and temperature changes. These loads are introduced by startup (heatup) and shutdown (cooldown) operations, power transients, and reactor trips. This LCO limits the pressure and temperature changes during RCS heatup and cooldown, within the design assumptions and the stress limits for cyclic operation.

The Specification contains P/T limit curves for heatup, cooldown, system leakage and hydrostatic testing, and criticality, and also limits the maximum rate of change of reactor coolant temperature. The P/T limit curves are applicable up to 22 effective full power years.

Each P/T limit curve defines an acceptable region for normal operation. The usual use of the curves is operational guidance during heatup or cooldown maneuvering, when pressure and temperature indications are monitored and compared to the applicable curve to determine that operation is within the allowable region.

The LCO establishes operating limits that provide a margin to brittle failure of the reactor vessel and piping of the reactor coolant pressure boundary (RCPB). The vessel is the component most subject to brittle failure. Therefore, the LCO limits apply mainly to the vessel.

10 CFR 50, Appendix G (Ref. 1), requires the establishment of P/T limits for material fracture toughness requirements of the RCPB materials. Reference 1 requires an adequate margin to brittle failure during normal operation, anticipated operational occurrences, and system hydrostatic tests. It mandates the use of the American Society of Mechanical Engineers (ASME) Code, Section III, Appendix G (Ref. 2).

The actual shift in the  $RT_{NDT}$  of the vessel material will be established periodically by removing and evaluating the irradiated reactor vessel material specimens, in accordance with ASTM E 185 (Ref. 3) and 10 CFR 50, Appendix H (Ref. 4). The operating P/T limit curves will be adjusted,

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(continued)



BASES (continued)

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APPLICABLE  
SAFETY ANALYSES

The P/T limits are not derived from Design Basis Accident (DBA) analyses. They are prescribed during normal operation to avoid encountering pressure, temperature, and temperature rate of change conditions that might cause undetected flaws to propagate and cause nonductile failure of the RCPB, a condition that is unanalyzed. References 7 and 8 provide the basis for the curves and limits required by this Specification. Since the P/T limits are not derived from any DBA, there are no acceptance limits related to the P/T limits. Rather, the P/T limits are acceptance limits themselves since they preclude operation in an unanalyzed condition.

RCS P/T limits satisfy Criterion 2 of Reference 9.

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LCO

The elements of this LCO are:

- a. RCS pressure and temperature are within the limits specified in Figures 3.4.11-1, 3.4.11-2, 3.4.11-3, 3.4.11-4, and 3.4.11-5, heatup and cooldown rates are  $\leq 100^{\circ}\text{F}$  in any 1 hour period during RCS heatup, cooldown, and system leakage and hydrostatic testing, and the RCS temperature change during system leakage and hydrostatic testing is  $\leq 20^{\circ}\text{F}$  in any 1 hour period when the RCS temperature and pressure are not within the limits of Figure 3.4.11-2 or Figure 3.4.11-3, as applicable;
- b. The temperature difference between the reactor vessel bottom head coolant and the reactor pressure vessel (RPV) coolant is  $\leq 145^{\circ}\text{F}$  during recirculation pump startup, and during increases in THERMAL POWER or jet pump loop flow while in single loop operation at low THERMAL POWER or jet pump loop flow;
- c. The temperature difference between the reactor coolant in the respective recirculation loop and in the reactor vessel is  $\leq 50^{\circ}\text{F}$  during recirculation pump startup, and during increases in THERMAL POWER or jet pump loop flow while in single loop operation at low THERMAL POWER or jet pump loop flow;
- d. RCS pressure and temperature are within the criticality limits specified in Figures 3.4.11-4 and 3.4.11-5, prior to achieving criticality; and

(continued)

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BASES

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SURVEILLANCE  
REQUIREMENTS

SR 3.4.11.7, SR 3.4.11.8, and SR 3.4.11.9 (continued)

The Notes contained in these SRs are necessary to specify when the reactor vessel flange and head flange temperatures are required to be verified to be within the specified limits.

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REFERENCES

1. 10 CFR 50, Appendix G.
  2. ASME, Boiler and Pressure Vessel Code, Section III, Appendix G.
  3. ASTM E 185-82, July 1982.
  4. 10 CFR 50, Appendix H.
  5. Regulatory Guide 1.99, Revision 2, May 1988.
  6. ASME, Boiler and Pressure Vessel Code, Section XI, Appendix E.
  7. Report No. MPM-502840, "Pressure-Temperature Operating Curves for Nine Mile Point Unit 2," July 2003.
  8. ASME Code Case N-640, "Alternate Reference Fracture Toughness for Development of P-T Limit Curves Section XI, Division 1."
  9. 10 CFR 50.36(c)(2)(ii).
  10. USAR, Section 15.4.4.
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BASES (continued)

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ACTIONS

A Note prohibits the application of LCO 3.0.4.b to an inoperable HPCS subsystem. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable HPCS subsystem and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

A.1

If any one low pressure ECCS injection/spray subsystem is inoperable, the inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining OPERABLE subsystems provide adequate core cooling during a LOCA. However, overall ECCS reliability is reduced because a single failure in one of the remaining OPERABLE subsystems concurrent with a LOCA may result in the ECCS not being able to perform its intended safety function. The 7 day Completion Time is based on a reliability study (Ref. 13) that evaluated the impact on ECCS availability by assuming that various components and subsystems were taken out of service. The results were used to calculate the average availability of ECCS equipment needed to mitigate the consequences of a LOCA as a function of allowed outage times (i.e., Completion Times).

B.1 and B.2

If the HPCS System is inoperable, and the RCIC System is immediately verified to be OPERABLE (when RCIC is required to be OPERABLE), the HPCS System must be restored to OPERABLE status within 14 days. In this condition, adequate core cooling is ensured by the OPERABILITY of the redundant and diverse low pressure ECCS injection/spray subsystems in conjunction with the ADS. Also, the RCIC System will automatically provide makeup water at most reactor operating pressures. Immediate verification of RCIC OPERABILITY is therefore required when HPCS is inoperable and RCIC is required to be OPERABLE. This may be performed by an administrative check, by examining logs or other information, to determine if RCIC is out of service for maintenance or other reasons. It is not necessary to perform the Surveillances needed to demonstrate the OPERABILITY of the RCIC System. However, if the OPERABILITY of the RCIC System cannot be immediately verified and

(continued)

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## BASES

## ACTIONS

B.1 and B.2 (continued)

RCIC is required to be OPERABLE, Condition D must be entered. If a single active component fails concurrent with a design basis LOCA, there is a potential, depending on the specific failure, that the minimum required ECCS equipment will not be available. A 14 day Completion Time is based on the results of a reliability study (Ref. 13) and has been found to be acceptable through operating experience.

C.1

With two ECCS injection subsystems inoperable or one ECCS injection and one ECCS spray subsystem inoperable, at least one ECCS injection/spray subsystem must be restored to OPERABLE status within 72 hours. In this condition, the remaining OPERABLE subsystems provide adequate core cooling during a LOCA. However, overall ECCS reliability is reduced in this Condition because a single failure in one of the remaining OPERABLE subsystems concurrent with a design basis LOCA may result in the ECCS not being able to perform its intended safety function. Since the ECCS availability is reduced relative to Condition A, a more restrictive Completion Time is imposed. The 72 hour Completion Time is based on a reliability study, as provided in Reference 13.

D.1 and D.2

If any Required Action and associated Completion Time of Condition A, B, or C are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

E.1

The LCO requires six ADS valves to be OPERABLE to provide the ADS function. Reference 14 contains the results of an analysis that evaluated the effect of two of seven ADS valves being out of service. This analysis showed that assuming a failure of the HPCS System, operation of only five ADS valves will provide the required depressurization. However, overall reliability of the ADS is reduced because a single failure in the OPERABLE ADS valves could result in a reduction in depressurization capability. Therefore, operation is only allowed for a limited time. The 14 day Completion Time is based on a reliability study (Ref. 13) and has been found to be acceptable through operating experience.

(continued)

BASES

BACKGROUND  
(continued)

The RCIC pump is provided with a minimum flow bypass line, which discharges to the suppression pool. The valve in this line automatically opens to prevent pump damage due to overheating when other discharge line valves are closed. To ensure rapid delivery of water to the RPV and to minimize water hammer effects, the RCIC System discharge line "keep fill" system is designed to maintain the pump discharge line filled with water.

APPLICABLE  
SAFETY ANALYSES

The function of the RCIC System is to respond to transient events by providing makeup coolant to the reactor. The RCIC System is not an Engineered Safety Feature System and no credit is taken in the safety analyses for RCIC System operation. Based on its contribution to the reduction of overall plant risk, the system satisfies Criterion 4 of Reference 3.

LCO

The OPERABILITY of the RCIC System provides adequate core cooling such that actuation of any of the ECCS subsystems is not required in the event of RPV isolation accompanied by a loss of feedwater flow. The RCIC System has sufficient capacity to maintain RPV inventory during an isolation event.

APPLICABILITY

The RCIC System is required to be OPERABLE in MODE 1, and MODES 2 and 3 with reactor steam dome pressure > 150 psig since RCIC is the primary non-ECCS water source for core cooling when the reactor is isolated and pressurized. In MODES 2 and 3 with reactor steam dome pressure ≤ 150 psig, and in MODES 4 and 5, RCIC is not required to be OPERABLE since the ECCS injection/spray subsystems can provide sufficient flow to the vessel.

ACTIONS

A Note prohibits the application of LCO 3.0.4.b to an inoperable RCIC System. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable RCIC System and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

A.1 and A.2

If the RCIC System is inoperable during MODE 1, or MODES 2 or 3 with reactor steam dome pressure > 150 psig, and the

(continued)

BASES

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ACTIONS

A.1 and A.2 (continued)

HPCS System is immediately verified to be OPERABLE, the RCIC System must be restored to OPERABLE status within 14 days.

In this condition, loss of the RCIC System will not affect the overall plant capability to provide makeup inventory at high RPV pressure since the HPCS System is the only high pressure system assumed to function during a loss of coolant accident (LOCA). OPERABILITY of the HPCS is therefore immediately verified when the RCIC System is inoperable. This may be performed as an administrative check, by examining logs or other information, to determine if the HPCS is out of service for maintenance or other reasons. Verification does not require performing the Surveillances needed to demonstrate the OPERABILITY of the HPCS System. If the OPERABILITY of the HPCS System cannot be immediately verified, however, Condition B must be entered. For transients and certain abnormal events with no LOCA, RCIC (as opposed to HPCS) is the preferred source of makeup coolant because of its relatively small capacity, which allows easier control of RPV water level. Therefore, a limited time is allowed to restore the inoperable RCIC to OPERABLE status.

The 14 day Completion Time is based on a reliability study (Ref. 4) that evaluated the impact on ECCS availability, assuming that various components and subsystems were taken out of service. The results were used to calculate the average availability of ECCS equipment needed to mitigate the consequences of a LOCA as a function of allowed outage times (AOTs). Because of the similar functions of the HPCS and RCIC, the AOTs (i.e., Completion Times) determined for the HPCS are also applied to RCIC.

B.1 and B.2

If the RCIC System cannot be restored to OPERABLE status within the associated Completion Time, or if the HPCS System is simultaneously inoperable, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and reactor steam dome pressure reduced to  $\leq 150$  psig within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

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(continued)

BASES

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ACTIONS

A.1 (continued)

accumulation exceeding this limit, and the low probability of failure of the OPERABLE primary containment hydrogen recombiner.

B.1 and B.2

With two primary containment hydrogen recombiners inoperable, the ability to perform the hydrogen and oxygen control function via an alternate capability must be verified by administrative means within 1 hour. The alternate hydrogen and oxygen control capability is provided by the Primary Containment Vent, Purge, and Nitrogen System and one RHR drywell spray subsystem. The 1 hour Completion Time allows a reasonable period of time to verify that a loss of hydrogen and oxygen control function does not exist. In addition, the alternate hydrogen and oxygen control system capability must be verified once per 12 hours thereafter to ensure its continued availability. Both the initial verification and all subsequent verifications may be performed as an administrative check by examining logs or other information to determine the availability of the alternate hydrogen and oxygen control system. It does not mean to perform the Surveillances needed to demonstrate OPERABILITY of the alternate hydrogen and oxygen control system. If the ability to perform the hydrogen and oxygen control function is maintained, continued operation is permitted with two hydrogen recombiners inoperable for up to 7 days. Seven days is a reasonable time to allow two hydrogen recombiners to be inoperable because the hydrogen and oxygen control function is maintained and because of the low probability of the occurrence of a LOCA that would generate hydrogen and oxygen in the amounts capable of exceeding the flammability limits.

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BASES

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LCO  
(continued)      operating in parallel test mode. Proper sequencing of loads, including tripping of nonessential loads, is a required function for DG OPERABILITY.

The AC sources in one division must be separate and independent (to the extent possible) of the AC sources in the other division(s). For the DGs, the separation and independence are complete. For the offsite AC sources, the separation and independence are to the extent practical.

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APPLICABILITY      The AC sources are required to be OPERABLE in MODES 1, 2, and 3 to ensure that:

- a.      Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of AOOs or abnormal transients; and
- b.      Adequate core cooling is provided and containment OPERABILITY and other vital functions are maintained in the event of a postulated DBA.

A Note has been added taking exception to the Applicability requirements for Division 3 sources, provided the HPCS System is declared inoperable. This exception is intended to allow declaring of the Division 3 inoperable either in lieu of declaring the Division 3 source inoperable, or at any time subsequent to entering ACTIONS for an inoperable Division 3 source. This exception is acceptable since, with the Division 3 inoperable and the associated ACTIONS entered, the Division 3 AC sources provide no additional assurance of meeting the above criteria.

AC power requirements for MODES 4 and 5 and other conditions in which AC sources are required are covered in LCO 3.8.2, "AC Sources – Shutdown."

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ACTIONS      A Note prohibits the application of LCO 3.0.4.b to an inoperable DG. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable DG and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

A.1

To ensure a highly reliable power source remains, it is necessary to verify the availability of the remaining required offsite circuit on a more frequent

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BASES

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ACTIONS

A.1 (continued)

basis. Since the Required Action only specifies "perform," a failure of SR 3.8.1.1 acceptance criteria does not result in the Required Action not met. However, if the second required circuit fails SR 3.8.1.1, the second offsite circuit is inoperable, and Condition C, for two offsite circuits inoperable, is entered.

A.2

Required Action A.2, which only applies if the division cannot be powered from an offsite source, is intended to provide assurance that an event with a coincident single failure of the associated DG does not result in a complete loss of safety function of critical systems. These features are designed with redundant safety related divisions (i.e., single division systems are not included, although, for this Required Action, Division 3 (HPCS System) is considered redundant to Division 1 and 2 Emergency Core Cooling Systems (ECCS)). Redundant required features failures consist of inoperable features associated with a division redundant to the division that has no offsite power.

The Completion Time for Required Action A.2 is intended to allow time for the operator to evaluate and repair any discovered inoperabilities. This Completion Time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this Required Action, the Completion Time only begins on discovery that both:

- a. The division has no offsite power supplying its loads; and
- b. A redundant required feature on another division is inoperable.

If, at any time during the existence of this Condition (one offsite circuit inoperable), a redundant required feature subsequently becomes inoperable, this Completion Time begins to be tracked.

Discovering no offsite power to one division of the onsite Class 1E Power Distribution System coincident with one or more inoperable redundant required support or supported features, or both, that are associated with the other division that has offsite power, results in starting the

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Enclosure B to  
NMP2L 2119

**NINE MILE POINT UNIT 2**

**10 CFR 50.59 EVALUATION SUMMARY REPORT**

**2004**

Docket No. 50-410  
License No. NPF-69

**50.59 Evaluation No.:** 98-038

**Implementation Document No.:** Procedure N2-CSP-2V

**USAR Affected Pages:** Figures 9.3-5e, 9.3-5f

**System:** Turbine Sampling (SST), Condensate (CNM),  
Circulating Water (CWS)

**Title of Change:** Circulating Water In-Leakage Monitoring

**Description of Change:**

The CWS system in-leakage into the main condenser is monitored by two methods. Both methods utilize equipment associated with the SST system, which provides for remote alarm in the Main Control Room when sample stream conductivity exceeds established limits. One of these methods utilizes conductivity meters from sample lines attached directly to the main condenser and hotwell. The other method utilizes conductivity meters from sample lines connected to the condensate demineralizer inlet piping. Because of suspected design problems associated with the hotwell sampling subsystem pumps and sampling locations, the subsystem was unavailable. This left the condensate demineralizer inlet sample location as the only means available to monitor condenser in-leakage. The impact of the hotwell sampling subsystem being out-of-service was evaluated. In order to periodically monitor condenser in-leakage from the hotwell/condenser sample tap locations, portable sampling equipment has been attached to existing sample system piping, and indefinite isolation of selected root valves located in high radiation areas is being performed until sample system design problems are rectified.

**50.59 Evaluation Summary:**

This evaluation demonstrates that with the hotwell sampling subsystem isolated, monitoring of the main condenser for circulating water in-leakage can still be performed using the condensate demineralizer inlet sample tap. Moreover, connection of portable sampling equipment to the hotwell sampling subsystem piping as a temporary alteration is an acceptable practice to periodically monitor condenser performance. Maintaining the hotwell sampling subsystem out-of-service, or connection of portable sampling equipment to the subsystem is in accordance with applicable codes and standards and does not reduce the margin of safety as defined in the basis of any plant Technical Specification. Based on the evaluation performed, it is concluded that these changes do not require prior NRC approval.

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**50.59 Evaluation No.:** 99-080  
**Implementation Document No.:** DDC 2M11576  
**USAR Affected Pages:** Figure 4.6-7 Sh 1 & 2  
**System:** Control Rod Drive Hydraulic (RDS)  
**Title of Change:** RDS Cooling Water Differential Pressure Inconsistency

**Description of Change:**

Operating Procedure N2-OP-30 requires that the RDS system cooling water differential pressure be maintained 15 to 30 psid above reactor pressure vessel (RPV) pressure. Per the USAR, cooling water to the control rod drives is required at approximately 15 psi above reactor pressure. Contrary to these requirements, the cooling water differential pressure was approximately 8 psid with respect to RPV pressure.

**50.59 Evaluation Summary:**

This evaluation found a reduced cooling water header differential pressure is acceptable, subject to ensuring the design required flow to the control rod drive mechanisms (CRDM) to protect the seals and bushings is maintained, and by monitoring of individual control rod temperatures. The RDS system will continue to reliably control reactivity changes under normal operation, anticipated operational occurrences, and accident conditions, including single failures. The change introduced will not interfere with occurrence of a reactor scram because none of the features, signals, or equipment required for a reactor scram or other safety functions are affected.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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**50.59 Evaluation No.:** 00-027 Rev. 1 & 2  
**Implementation Document No.:** Procedures GAP-POL-01, NIP-TQS-01  
**USAR Affected Pages:** 12.1-7, 12.5-3, 12.5-4, 12.5-17  
**System:** N/A  
**Title of Change:** Radiation Protection Department  
Organizational Change

**Description of Change:**

The position titled "Radiation Specialist" has been added to the functional areas staffing under the Unit 2 Radiation Protection Manager. The titled position "Supervisor Radiation Protection (Equipment)," under the Unit 1 Radiation Protection Manager, has been eliminated. All duties and functions of this titled position have been transferred to the existing position titled "Supervisor Instrument Calibration." The functional area "Instrument Calibrations" has been relocated from the Unit 2 Radiation Protection Manager to the Unit 2 Maintenance Manager. A descriptive qualifier has been added to clarify the existing requirement that source handling is performed by individuals qualified in radiation protection procedures. The qualifications of non-licensed site organization staff members have been redefined to make them more consistent with applicable standards, or with equivalent existing organizational positions.

**50.59 Evaluation Summary:**

The changes to the Radiation Protection Department organization, and the qualifications of non-licensed department staff members, conform to the Unit 2 Improved Technical Specifications Section 5.0 and Technical Specifications Section 6.2.1, and the Unit 1 Technical Specifications Section 6.2.1. The changes do not impact initiation of accidents or a malfunction of equipment important to safety.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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**50.59 Evaluation No.:** 00-084  
**Implementation Document No.:** Temporary Mod. 2000-030  
**USAR Affected Pages:** N/A  
**System:** Condensate (CNM)  
**Title of Change:** Removal of Stop Mechanism from  
2CNM-V201B

**Description of Change:**

This modification temporarily removed the upper works that contain the gearing to allow valve 2CNM-V201B to work as a stop valve, and replaced them with a cap that is designed to withstand full line operating pressure. The checking feature of this valve was not affected by this change. The change was made to repair a packing leak that could not be repaired in the expected duration of the noble metals outage.

**50.59 Evaluation Summary:**

This modification temporarily removes the ability to positively isolate the discharge valve for condensate booster pump 2CNM-P2B by removing the stop mechanism from valve 2CNM-V201B. This change stops a packing leak that cannot be repaired in the expected duration of the noble metals outage, and does not introduce a new mode of plant operation. Furthermore, the affected functions are not assumed in the primary success path for any analyzed accident or transient. This evaluation determined that this change will not impact any event-assumed initial conditions, event initiators, or event mitigators.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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**50.59 Evaluation No.:** 00-088  
**Implementation Document No.:** Temporary Mod. 2000-032  
**USAR Affected Pages:** N/A  
**System:** Condensate (CNM)  
**Title of Change:** Temporary Addition of a Valve to Isolate Leakage Past 2CNM-V210C

**Description of Change:**

This temporary modification installed a temporary valve, pipe nipple, and cap in the piping downstream of valve 2CNM-V210C. This change isolated leakage and re-established the pressure integrity of the piping that vents the CNM system in line 2-CNM-750-304-4. To facilitate this installation, the existing piping was cut and the temporary valve, 2CNM-V372, pipe nipple and cap were installed. The remaining portion of downstream piping and supports in line 2-CNM-750-304-4 were removed.

**50.59 Evaluation Summary:**

This temporary modification installs a temporary valve, pipe nipple, and cap, and removes a free-ended portion of vent piping in the CNM system vent line 2-CNM-750-304-4. This change is made to isolate leakage past 2CNM-V210C and to provide system pressure integrity during normal plant operation.

The CNM system is designed to the requirements of ANSI B31.1 for valves and piping. The installed valve and piping are designed to withstand full line pressure and are made of materials compatible with the existing piping. The valve is to be installed by cutting and threading the existing piping downstream of 2CNM-V210C. An 800# class carbon steel globe valve with threaded ends will be installed. A pipe nipple and cap closure is utilized to provide further assurance that any leakage past either of the isolation valves will be contained. The new valve, piping and fittings meet the requirements of ANSI B31.1.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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**50.59 Evaluation No.:** 01-066

**Implementation Document No.:** Mod. N2-97-040

**USAR Affected Pages:** 3A-1, 3A-2, 3A.25-1, 3A.38-1, 3A.38-2, 9.1-6, 9.1-7a, 9.1-8, 9.1-11a, 9.1-11b, 9.1-11c, 9.1-12, 9.1-38, 9.1-55; Table 9.1-4 Sh 2; Figures 9.1-2, 9.1-3, 9.1-3b, 9.1-4a, 9.1-7

**System:** Spent Fuel (SFC)

**Title of Change:** Phase II Spent Fuel Rack Installation

**Description of Change:**

Spent fuel rack installation in the spent fuel pool was originally planned to be performed in two phases – Phase I during plant construction and Phase II when required. This modification completed Phase II of rack installation by adding ten new spent fuel racks. The installation of the new racks provides more spent fuel storage within the spent fuel pool licensed capacity of approximately 4000 fuel assemblies. This activity involved the use of new methods of evaluation.

**50.59 Evaluation Summary:**

This modification uses methods of evaluation that have been approved by the NRC in safety evaluations (SE) performed for other plants. The subject methods of evaluation are appropriate for the intended application, and the terms and conditions for their use as specified in the NRC SEs have been satisfied. By definition (a)(2) of the new 50.59 rule, the new methods of evaluation are not considered a departure from methods described in the USAR.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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<b>50.59 Evaluation No.:</b>	01-067 Rev. 0 & 1
<b>Implementation Document No.:</b>	Temporary Change Package N2-01-049
<b>USAR Affected Pages:</b>	N/A
<b>System:</b>	Reactor Water Recirculation (RCS)
<b>Title of Change:</b>	Substitute Position Feedback and Demand Signals to Facilitate Manual Operation of 2RCS*HYV17B

**Description of Change:**

The position feedback to the control circuit for flow control valve 2RCS\*HYV17B failed. This temporary change allowed the operators to position the recirculation flow control valve to meet flow requirements.

A constant voltage of 5 VDC substituted the position feedback signal voltage and a DC power supply was used to provide a variable demand signal. The demand signal can be varied/manipulated such that the valve positioner moves the valve position in the open or closed direction to correct the voltage mismatch. When the valve achieved the correct position, the operator readjusted the variable controller to 5 VDC, stopping valve movement.

**50.59 Evaluation Summary:**

The temporary changes to the control signal as described are bounded by the current USAR transient analysis, which ensures that the safety limit critical power ratio is not exceeded, the limits of 10CFR50.46 are satisfied, and that no fuel licensing acceptance criteria are violated. The control circuit modification, including any increased operator action, does not adversely impact the integrity of the reactor vessel and reactor coolant system. None of the protective features of the control circuit, such as motion inhibit and maximum rate of travel, are affected.

Based on the evaluation performed, it is concluded that this change does not require prior NRC approval.

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**50.59 Evaluation No.:** 02-027

**Implementation Document No.:** Design Change Packages N2-02-024, N2-02-182, N2-02-183, N2-02-184, N2-02-185

**USAR Affected Pages:** 3C-6, 3C-7, 6.2-77, 6.2-78, 6.3-3, 6.3-3a, 6.3-11, 6.3-13, 6.3-14, 6.3-16, 6.3-17; Tables 3.9A-12 Sh 2 & 8, 6.2-56 Sh 2, 3, 20; Figures 5.4-13a, 6.3-6a, 6.3-6b, 6.3-7a, 7.3-2 Sh 3, 7.3-5 Sh 2, 7.3-6 Sh 2, 9.3-1g

**System:** Residual Heat Removal (RHS), Low-Pressure Core Spray (CSL), High-Pressure Core Spray (CSH)

**Title of Change:** Internal Modification and Removal of Remote Testing and Position Indication from 2RHS\*AOV16A,B,C, 2CSL\*AOV101, and 2CSH\*AOV108

**Description of Change:**

This design change modified the internals of Anchor Darling testable check valves 2RHS\*AOV16A,B,C, 2CSL\*AOV101, and 2CSH\*AOV108. The modification increased the reliability of the check valves, while resulting in the elimination of position indication and remote test capability. These include the injection/spray as well as the containment isolation (and high-low pressure interface) valves of the RHS, CSL and CSH systems.

**50.59 Evaluation Summary:**

This design change eliminates the indicator rod packing frictional torque, the indicator limit switch torque, and any potential resistive torque from the actuator on the valve disk. This is accomplished by removing the indicator rod and the air actuator assembly. This equipment removal results in elimination of remote valve disk position indication and remote testing capability. The actuator is not needed for opening the valve, as its sole purpose is testing. Thus, this only impacts the testing of the check valves. Under accident differential pressure, by design, the valve will effectively close.

Based on the evaluation performed, it is concluded that these changes do not require prior NRC approval.

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Enclosure C to  
NMP2L 2119

**NINE MILE POINT UNIT 2**

**IDENTIFICATION OF CHANGES, REASONS, AND BASES  
FOR QUALITY ASSURANCE PROGRAM TOPICAL REPORT  
DESCRIPTION CHANGES (USAR APPENDIX B)**

Docket No. 50-410  
License No. NPF-69

ENCLOSURE C

IDENTIFICATION OF CHANGES, REASONS, AND BASES FOR QA  
PROGRAM DESCRIPTION CHANGES (UNIT 2 USAR APPENDIX B)

USAR Appendix B Page/Section	Identification of Change	Reason for Change	Basis for Concluding that the Revised Program Continues to Satisfy 10CFR50 Appendix B and Commitments Previously Approved by the NRC
Page B-i	Change title to eliminate reference to Niagara Mohawk and replace with Nine Mile Point Nuclear Station, LLC.	Reflect new ownership of Nine Mile Point Nuclear Station.	This change reflects a change in ownership of the Nine Mile Point Nuclear Station and has no material impact on the QA plan or its implementation.
Pages B.0-1 & B.0-2, Prelude, and Section B.0	Certain organizational changes have been made resulting in positions, with different titles than under the previous licensee, having responsibilities for various aspects of the QA program as described in the QATR. Responsibility for the QA program has been changed from Niagara Mohawk to the new entity of Nine Mile Point Nuclear Station, LLC, which is identified throughout the QATR as NMPNS.	Reflect new ownership of Nine Mile Point Nuclear Station.	These changes reflect a change in ownership of the Nine Mile Point Nuclear Station. No QA plan functions are eliminated or reduced and, therefore, these changes have no material impact on the QA plan or its implementation. These changes are also consistent with the License Transfer Amendment approved by the NRC and, therefore, do not represent a reduction in effectiveness of the QA program as approved by the NRC.
Page B.1-1, Sections B.1.1 and B.1.2.1	Certain organizational changes have been made, resulting in positions, with different titles than under the previous licensee, having responsibilities for various aspects of the QA program, as described in the QATR. Responsibility for the QA program has been changed from Niagara Mohawk to the new entity of Nine Mile Point Nuclear Station, LLC, which is identified throughout the QATR as NMPNS.	Reflect new ownership of Nine Mile Point Nuclear Station.	These changes reflect a change in ownership of the Nine Mile Point Nuclear Station. No QA plan functions are eliminated or reduced and, therefore, these changes have no material impact on the QA plan or its implementation. These changes are also consistent with the License Transfer Amendment approved by the NRC and, therefore, do not represent a reduction in effectiveness of the QA program as approved by the NRC.
Pages B.1-2, B.1-3, B.1-4, B.1-5, Section B.1.2.1.1	Certain organizational changes have been made resulting in positions, with different titles than under the previous licensee, having responsibilities for various aspects of the QA program, as described in the QATR. Responsibility for the QA program has been changed from Niagara Mohawk to the new	Reflect new ownership of Nine Mile Point Nuclear Station.	These changes reflect a change in ownership of the Nine Mile Point Nuclear Station. No QA plan functions are eliminated or reduced and, therefore, these changes have no material impact on the QA plan or its implementation. These changes are also consistent with the License Transfer Amendment approved by the NRC and, therefore, do not

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USAR Appendix B Page/Section	Identification of Change	Reason for Change	Basis for Concluding that the Revised Program Continues to Satisfy 10CFR50 Appendix B and Commitments Previously Approved by the NRC
	entity of Nine Mile Point Nuclear Station, LLC, which is identified throughout the QATR as NMPNS.		represent a reduction in effectiveness of the QA program as approved by the NRC.
Pages B.1-3 and B.1-4, Section B.1.2.1.1, Paragraph 3	Deleted existing Paragraph 3 and renumbered previous paragraphs 4 & 5 to 3 & 4.	Elimination of the ISEG group.	Changes were submitted to the NRC, Region I, on 10/17/02 by transmittal letter NMPIL 61681, and accepted without comment on 12/17/02.
Pages B.1-4 and B.1-5, Section B.1.2.1.2	Title Changed to "External Organizations." Section changed to provide a summary description of the QA program requirements for external organizations which provide items or services to NMPNS. This summary reflects the detailed requirements included within specific sections of the QATR.	Reflect new ownership of Nine Mile Point Nuclear Station.	The previous description of services supplied by corporate groups outside of Nuclear is no longer applicable. After license transfer, the support services previously described in this section will be provided by either Nine Mile Point or another organization and, therefore, will fall under the appropriate existing provision of the QATR. This does not represent a reduction in the effectiveness of the QA program.
Pages B.2-1, B.2-2, B.2-3, B.2-4, B.2-5, B.2-6, B.2-9, B.2-10, B.2-12, B.3-1, B.5-1, B.7-1, B.7-2, B.9-2, B.15-2, and B.18-2, Table B-1 (Pages 1 & 2), and Table B-2 (Pages 1 through 8)	Appropriate changes to Nuclear Division, Niagara Mohawk Power Corporation, NMPC, CNO references and/or organization structure to reflect the revised organization structure after license transfer.	Reflect new ownership of Nine Mile Point Nuclear Station.	These changes reflect a change in ownership of the Nine Mile Point Nuclear Station. No QA plan functions are eliminated or reduced and, therefore, these changes have no material impact on the QA plan or its implementation. These changes are also consistent with the License Transfer Amendment approved by the NRC and, therefore, do not represent a reduction in effectiveness of the QA program as approved by the NRC.
Pages B.1-1, B.1-2, B.1-3, B.1-4, B.2-1, B.2-2, B.2-3, B.2-6, B.2-10, B.2-11, B.2-12, B.5-3, B.5-4, and B.5-5	Editorial changes to correct typographical errors, clarify phrasing, or establish generic title reference.	Editorial changes to correct typographical errors, clarify phrasing, or establish generic title reference.	Throughout the QATR, changes have been made to correct typographical errors, to clarify phrasing, or to create generic references to positions or documents by using lower case characters. These changes have no impact on the implementation of the QA program and, therefore, do not represent a reduction in the effectiveness of the QA program as approved by the NRC.
Page B.2-7, Section B.2.2.16, Paragraphs 5 & 6	Eliminate references to existing Technical Specification requirements and incorporate existing Unit 1 Technical Specification requirements into the QA plan.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.

USAR Appendix B Page/Section	Identification of Change	Reason for Change	Basis for Concluding that the Revised Program Continues to Satisfy 10CFR50 Appendix B and Commitments Previously Approved by the NRC
Page B.2-10, Section B.2.2.17, Paragraph 5	Eliminate references to existing Technical Specification requirements.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
Pages B.2-12 and B.2-13, Section B.2.2.18	Renumbered existing section B.2.2.18 to B.2.2.19 and added new section B.2.2.18 to describe responsibilities for performance of the ISEG functions.	Elimination of the ISEG group and transfer of ISEG functions to other existing functional groups.	Changes were submitted to the NRC, Region I, on 10/17/02 by transmittal letter NMP1L 61681, and accepted without comment on 12/17/02.
Page B.5-2, Section B.5.2.6, Paragraphs 1 & 2, and Footnote	Revised periodic review requirement to clarify frequency and methods of meeting periodic review requirements.	Establish process consistency with other owned units (Calvert Cliffs).	The changes made to paragraphs B.5.2.6-1 and 2 do not represent a reduction in effectiveness, as they are materially identical to changes in the Calvert Cliffs QA program for the biennial review of procedures. The Calvert Cliffs change was approved by the NRC by a Safety Evaluation for Amendment 216 to License No. DPR-53. The basis for the NRC approval of this change was an internal policy memorandum of C. Rossi, dated 12/21/92. Not only is the proposed QATR materially consistent with the approved Calvert Cliffs QA program revision, it is also consistent with the NRC policy as described in the Rossi memorandum. Therefore, in accordance with 10CFR50.54(a), these changes do not represent a reduction in commitment.
Page B.5-2, Section B.5.2.7	Change references to Technical Specification Section 6.8.1 to Section 6.4.1.	Consistency with Unit 1 Technical Specifications.	These changes are strictly editorial and have no material impact on features of the QA plan or its implementation.
Page B.5-2, Section B.5.2.7	Incorporate existing Unit 1 Technical Specification requirements into the QA plan.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
Page B.5-3, Sections B.5.2.8 and B.5.2.9	Change references to Technical Specification Section 6.8.1 to Section 6.4.1.	Consistency with Unit 1 Technical Specifications.	These changes are strictly editorial and have no material impact on features of the QA plan or its implementation.

# QA Program Description Changes

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USAR Appendix B Page/Section	Identification of Change	Reason for Change	Basis for Concluding that the Revised Program Continues to Satisfy 10CFR50 Appendix B and Commitments Previously Approved by the NRC
Page B.5-5, Section B.5.2.9	Added paragraph 13 to reflect current Unit 1 Technical Specification requirement for annual review of the Fire Protection Program.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
Page B.17-1, Section B.17.2.2	Change references to Technical Specification Section 6.8.1 to Section 6.4.1. Removed reference to Technical Specification Table 5.7.1-1.	Incorrect reference. Correct reference is the USAR, which is also provided.	These changes are strictly editorial and have no material impact on features of the QA plan or its implementation.
Page B.17-2, Section B.17.2.2, Paragraph 2.e.	Eliminate reference to existing Unit 1 Technical Specifications and provide appropriate reference to USAR.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
B.18-1, Section B.18.2.4	Eliminate reference to existing Unit 1 Technical Specification and provide appropriate reference with QATR.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
B.18-2, Section B.18.2.12	Eliminate reference to existing Unit 1 Technical Specification and provide appropriate reference with QATR.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.
Table B-2, Items 2.d and 2.n	Provide appropriate reference with QATR.	Support amendment to revise existing Unit 1 Technical Specifications to reflect current ITS requirements consistent with Unit 2 for the administrative (Section 6) Technical Specification requirements.	These changes incorporate current Unit 1 Technical Specification requirements into the QA plan, and are similar to previous revision to the QA plan to reflect the Unit 2 transition to the ITS format for Technical Specifications.

**Enclosure D to  
NMP2L 2119**

**NINE MILE POINT UNIT 2**

**REVISED TECHNICAL REQUIREMENTS MANUAL PAGES**

**2004**

**Docket No. 50-410  
License No. NPF-69**



**Enclosure E to  
NMP2L 2119**

**NINE MILE POINT UNIT 2**

**TECHNICAL REQUIREMENTS MANUAL  
CHANGE SUMMARY**

**2004**

**Docket No. 50-410  
License No. NPF-69**

Revision 10 TRM Table T3.6.1-2 (Pages 3.6-19 and 3.6-20) was revised by moving valves 2RCS\*EFV44A and B from the "Reactor Instrumentation Lines" section to the "Other" section, as these valves do not communicate with the reactor coolant pressure boundary.

TRM Table T3.6.1-2 (Pages 3.6-13, 3.6-18, 3.6-19, 3.6-20 and 3.6-21) was revised by deleting note (o) for the following valves in the table: 2RHS\*MOV1A/B/C, 2CSH\*MOV118, 2CSL\*MOV112, 2ICS\*MOV136, 2RHS\*MOV26A/B, and 2RHS\*MOV27A/B. Note (o) on page 3.6-21 was deleted. Valves in penetrations that remain water-filled post-LOCA do not require leak rate testing in accordance with the Appendix J program.

TRM TLCO 3.4.2 (Page 3.4-9), TRSR 3.4.2.1 (Page 3.4-10) and Bases Section B3.4.2 (Page B3.4-2) were revised to accurately reflect 10 CFR 50.55a as it currently exists.

TRM Bases Section B3.7.8 (Page B3.7-11) was revised by replacing references to "automatic" control features with "manual," consistent with the plant design.

TRM Table T3.6.1-2 (Page 3.6-13) was revised by removing note (q) from valves 2CIS\*MOV136 and 2CSH\*MOV118. Valves in penetrations that remain water-filled post-LOCA do not require leak rate testing in accordance with the Appendix J program.

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Revision 11 TRM 5.5.3 (Page 5.5-2) was revised to reflect License Amendment 106 by deleting the Post Accident Sampling System Program requirements.

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Revision 12 TRM Table T3.6.1-2 (Page 3.6-7) was revised by adding note (n) to valves 2MSS\*AOV6A, B, C and D, allowing testing in the reverse direction. This is in accordance with NRC Regulatory Guide 1.163; ANSI/ANS - 56.8 - 1994, Section 6.2; and NEI 99-01, Section 8.0.

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Revision 13 TRM TRSR 3.0.3 (Page 3.0-3) was revised to reflect License Amendment 107, which revised the Technical Specifications Surveillance Requirement (SR) 3.0.3 to extend the delay period for missed surveillances in accordance with Technical Specification Task Force (TSTF) change TSTF-358, Revision 6.

Revision 14 TRM TLCO 3.0.4 (Pages 3.0-1 and 3.0-2), TRSR 3.0.4 (Page 3.0-4), TRM 3.3.3.1 (Page 3.3-10), TRM 3.3.11 (Page 3.3-38 ) and TRM 3.7.8 (Page 3.7-16) were revised to allow entry into a MODE after performing a risk assessment addressing inoperable systems and components. This revision reflects License Amendment 109.

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Revision 15 TRM Table 3.4.6-1 (Page 3.4-14) and Table 3.6.1-2 (Page 3.6-16) were revised by changing designation "AOV" to "V" for valves 2CSL\*AOV101, 2CSH\*AOV108, and 2RHS\*AOV16 A, B and C to reflect that the valves are now simple check valves. Also, on Table 3.6.1-2 (Page 3.6-21), Note (h) was revised by eliminating the air actuated testing feature and position indication for the associated valves.

**Enclosure F to  
NMP2L 2119**

**NINE MILE POINT UNIT 2**

**REVISED TECHNICAL SPECIFICATIONS BASES PAGES**

**2004**

**Docket No. 50-410  
License No. NPF-69**

**Enclosure G to  
NMP2L 2119**

**NINE MILE POINT UNIT 2**

**TECHNICAL SPECIFICATIONS BASES  
CHANGE SUMMARY**

**2004**

**Docket No. 50-410  
License No. NPF-69**

Technical Specifications Bases  
Change Summary Report  
Page 1 of 1

Revision 8 Bases Section B 3.0 (Pages B 3.0-13 through B 3.0-17) was revised to reflect License Amendment 107. License Amendment 107 revised the Technical Specifications Surveillance Requirement (SR) 3.0.3 to extend the delay period for missed surveillances in accordance with Technical Specification Task Force (TSTF) change TSTF-358, Revision 6.

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Revision 9 Bases Sections B 3.0 (Pages B 3.0-5 through B 3.0-17), B 3.3.3.1 (Page B 3.3.3.1-8), B 3.3.3.2 (Page B 3.3.3.2-3), B 3.4.7 (Pages B 3.4.7-3 and B 3.4.7-4), B 3.4.8 (Pages B 3.4.8-2 and B 3.4.8-3), B 3.4.9 (Page B 3.4.9-3), B 3.5.1 (Pages B 3.5.1-6 and B 3.5.1-7), B 3.5.3 (Pages B 3.5.3-2 and B 3.5.3-3), B 3.6.3.1 (Page B 3.6.3.1-4), and B 3.8.1 (Pages B 3.8.1-5 and B 3.8.1-6) were revised to reflect License Amendment 109. License Amendment 109 revised the Technical Specifications to adopt the provisions of the Technical Specification Task Force (TSTF) change TSTF-359, Revision 9, allowing increased flexibility in mode changes.

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Revision 10 Bases Section B 3.4.11 (Pages B 3.4.11-1, B 3.4.11-3, and B 3.4.11-10) was revised to reflect License Amendment 110. License Amendment 110 revised the reactor coolant system pressure-temperature limit curves in Section 3.4.11 of the Technical Specifications. Revised curves are based on the use of American Society of Mechanical Engineers Code Case N-640.

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Revision 11 Bases Section B 3.0 (Pages B 3.0-7 and B 3.0-17) was revised to include a transition from MODE 1 to MODE 3 in the "unit shutdown" definition to reflect existing plant practices and procedures.

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Revision 12 Bases Section B 3.1.7 (Pages B 3.1.7-1 and B 3.1.7-6) was revised to reflect License Amendment 111. License Amendment 111 revised the Standby Liquid Control System boron solution requirements to support a transition from GE11 to GE14 fuel.